

REMARKS

Claims 1-3, 5, 7-13, 15, 16 and 18-28 are currently pending in this application. Claims 6 and 17 have been withdrawn from consideration in response to a restriction requirement. Reconsideration is respectfully requested in light of the above amendments and the following remarks.

Applicants submit herewith for the Examiner's review copies of Office action received for related applications.

The Examiner rejected claims 1-5, 7-13, 18-28 under 35 U.S.C §102(e) as being anticipated by U.S. Patent No. 6,934,585 to Schloss et al. The Examiner also rejected claims 1-3, 9-13, 18-21 and 23-28 under 35 U.S.C §102(e) as being anticipated by U.S. Patent No. 6,643,547 to Kim. Applicants respectfully traverse these rejections.

Applicants claimed invention as recited in independent claims 1, 11, 19 and 24 is directed toward an implantable device and corresponding method and system for adjusting atrial blanking intervals. For example, independent claim 1 recites an implantable device comprised in part by a controller configured to determine an average atrial rate and an average ventricular rate and to execute a search routine to select a first post-ventricular atrial blanking interval for use after ventricular pace events and a second post-ventricular atrial blanking interval for use after ventricular sense events if a ratio of the average atrial rate and average ventricular rate exceeds a threshold. (Underlining added for emphasis only). Applicants respectfully submit that neither Schloss et al. nor Kim disclose or suggest the recited claim elements.

Applicants submit that Schloss et al. do not disclose or in any way suggest a controller configured to execute a search routine to systematically apply a plurality of different atrial blanking period interval values after corresponding ventricular pace events and corresponding ventricular sense events if the ratio of the average atrial rate and average ventricular rate exceeds a threshold as recited in the claimed invention. Accordingly, Applicants respectfully submit that independent claims 1, 11, 19 and 24 are novel and non-obvious over Schloss et al. Applicants further submit that claims 2-5 and 7-10, claims 12-13 and 18, claims 20-23 and claims 25-28 that depend from claims 1, 11, 19

and 24 respectively are allowable as are claims 1, 11, 19 and 24 and for additional limitations recited therein.

Similarly, Kim is directed toward a method and device for sensing atrial depolarizations during a ventricular tachycardia. Kim does not however, disclose or suggest using different PVAB intervals in response to a paced ventricular event and a sensed ventricular events as alleged by the Examiner.

Rather, the device of Kim modifies the blanking interval in response to changes in ventricular event rate, not based upon the type of event as recited in the claimed invention. For example, when the ventricular rate is above a specified limit rate, the device of Kim shortens the interval for the atrial sensing channel in order to allow sensing of atrial depolarizations that occur shortly after a ventricular sense. (see Abstract). As noted by the Examiner, Kim further discloses that the specificity of the atrial sensing channel may be increased when the blanking interval is shortened to lessen the possibility of far-field sensing. One way of doing this is to increase the sensing threshold of the atrial sensing channel. (Underlining added for emphasis only). (Kim, col. 2, lines 45-49).

Thus, Kim discloses modifying the blanking interval in response to changes in the ventricular rate and modifying the atrial sensing threshold as a function of the blanking interval. Kim does not however, disclose or suggest a first post-ventricular atrial blanking interval for use after ventricular pace events ... and a second post-ventricular atrial blanking interval for use after ventricular sense events ... as recited in the claimed invention. Accordingly, Applicants respectfully submit that claims 1, 11, 19 and 24 are novel and non-obvious over Kim. Applicants further submit that claims 2-3 and 9-10, claims 12-13 and 18, claims 20-21 and 23 and claims 25-28 that depend from claims 1, 11, 19 and 24 respectively are allowable as are claims 1, 11, 19 and 24 and for additional limitations recited therein.

The Examiner rejected claims 4-5, 7-8, 14-16 and 22 under 35 U.S.C §103(a) as being obvious over Kim. Applicants respectfully traverse this rejection.

In view of the foregoing analysis of independent claims 1, 11 and 19 in view of Kim, Applicants believe that the rejection of dependent claims 4-5, 7-8, 14-16 and 22 under §103 is rendered moot as claims 4-5 and 7-8, claims 1-16 and claim 22 depend from allowable independent claims 1, 11 and 19 respectively. Applicant, therefore,

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requests withdrawal of the rejection of claims 4-5, 7-8, 14-16 and 22 under 35 U.S.C. § 103(a).

The Examiner rejected claims 1-5, 7-16 and 18-28 under 35 U.S.C §103(a) as being obvious over U.S. Patent 6,477,416 to Florio et al. in view of Kim. Applicant respectfully traverses this rejection.

As the Examiner admits neither Florio et al. nor Kim execute a search routine to determine a PVAB interval for use after ventricular sense events and a second PVAB interval for use after ventricular pace events as recited in the claimed invention. Moreover, neither Florio et al. nor Kim disclose or in any way suggest monitoring the ratio of the average atrial rate and the average ventricular rate to trigger the PVAB search routine as recited in the claimed invention.

Accordingly, Applicants respectfully submit that independent claims 1, 11, 19 and 24 are novel and non-obvious over Florio et al. and Kim and are allowable. Applicants further submit that claims 2-5, 7-10, claims 12-16 and 18, claims 20-23 and claims 25-28 that depend from claims 1, 11, 19 and 24 respectively are allowable as are claims 1, 11, 19 and 24 and for additional limitations recited therein.

In light of the above claim amendments and remarks, it is respectfully submitted that the application is in condition for allowance, and an early notice of allowance is requested.

Respectfully submitted,

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Date

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